Table 1

No.	Fluorine Compound in solution		Polymer Containing Fluorine in solution	Additional Metal Salts mmol		pH Adjustment	Precipitate Weight (g)	Fixing Ratio of Anion %	Precipitation Rate of Polymer %	Concentration in Supernatant liquor	
	Kinds	Concentration		Trivalent	Divalent					Anion	Polymer
1	Per-fluoro-octanoic acid ammonium ($C_7F_{15}COONH_4$)	148ppm 1 L	PTFE 2300ppm	Al 0.378 (1.1)	Zn 0.755 (2.2)	6.5~7.5	2.50	98.6	98%	2ppm	<50ppm
2	Ditto	200ppm 1 L	PTFE 2300ppm	Al 0.603 (1.3)	Mg 1.21 (2.6)	9~10	2.54	95.9	98%	8ppm	<50ppm
3	Ditto	148ppm 1 L	PTFE 2300ppm	Al 4.46 (1.3)	Mg 8.92 (2.6)	10~11	3.56	98.6	98%	2ppm	<50ppm
4	Ditto	500ppm 20 L	PTFE 2300ppm	Al 30.2 (1.3)	Zn 69.6 (3.0)	6.5~7.5	65.2	99.4	98%	3ppm	<50ppm
5	Ditto	500ppm 20 L	PTFE 2300ppm	Al 46.4 (2.0)	Mg 92.8 (4.0)	9~10	66.6	99.4	98%	3ppm	<50ppm
6	Same conditions of precipitate formation as No.4, Recovered precipitate is dissolved in concentrated hydrochloric acid to recover per-fluoro-octanoic acid										
7	Same conditions of precipitate formation as No.5, Recovered precipitate is dissolved in dilute sulfuric acid to take out an oil layer of per-fluoro-octanoic acid without filtering undissolved										
8	Ditto	1000ppm 1 L	PTFE 2300ppm	Al 2.32 (1.0)	Ca 4.64 (2.0)	9~10	3.22	65.6	98%	344ppm	<50ppm
9	Per-fluoro-decanoic acid ammonium ($C_9F_{19}COONH_4$)	500ppm 1 L	PTFE 2300ppm	Al 1.88 (2.0)	Mg 3.77 (4.0)	9~10	2.82	99.4	98%	3ppm	<50ppm
10	Per-fluoro-octanoic acid ammonium (Liquid Temperature 50-60℃)	148ppm 1 L	PTFE 2300ppm	Al 0.378 (1.1)	Zn 0.755 (2.2)	6.5~7.5	2.62	91.2	98%	13ppm	<50ppm
11	Per-fluoro-octanoic acid ammonium ($C_7F_{15}COONH_4$)	100ppm 1 L	PTFE 2300ppm	Al 0.232	Zn:0.232 Mg:0.232	8~9	2.32	96.0	98%	4ppm	<50ppm

(Note) The value of ( ) of metal salt concentration is mole ratio. The precipitate weight is a dried weight (g). The fixing ratio of anions is (%) to the initial concentration of a fluorine compound. The precipitation rate of polymer is a precipitated weight (%) to the initial concentration of a polymer containing fluorine. An anion in the supernatant liquor is a fluorine compound. The liquid temperature excepting No. 10 is 26℃.